

# Innovative Deployments to Enhance Arterials

## Shared Automated Vehicle (IDEA SAV) Program

### MTC Technical Assistance and Grant Opportunity



*Pre-Submittal Event  
June 22, 2021*



# Agenda

- Program Motivation
- Program Goal and Objectives
- Eligibility
- Program Target User Groups
- Grant Funding and Match
- Project Selection Timeline
- Project Evaluation Process
- Application Instructions
- Program Contacts
- Q&A Session

# IDEA SAV Web Page

<https://mtc.ca.gov/our-work/operate-coordinate/intelligent-transportation-systems/connected-vehicles/innovative>

## Operate + Coordinate

Connected + Automated Vehicles

Shared Automated Vehicles (IDEA SAV)

Related Documents

MTC IDEA SAV Program - Call for Projects  
2.07 MB

MTC IDEA SAV Program - Call for Projects - Attachment B - Stage 1 Application Form  
86.84 KB

MTC IDEA SAV Program - Call for Projects - Attachment E - Budget Templates  
28.42 KB

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### Innovative Deployments to Enhance Arterials Shared Automated Vehicles (IDEA SAV)

MTC's Innovative Deployments to Enhance Arterials Shared Automated Vehicle (IDEA SAV) Program assists public agencies with deploying Shared Automated Vehicle (SAV) solutions to improve transit service and equity. The program provides both technical assistance and a funding opportunity for Bay Area cities, counties and transit agencies.

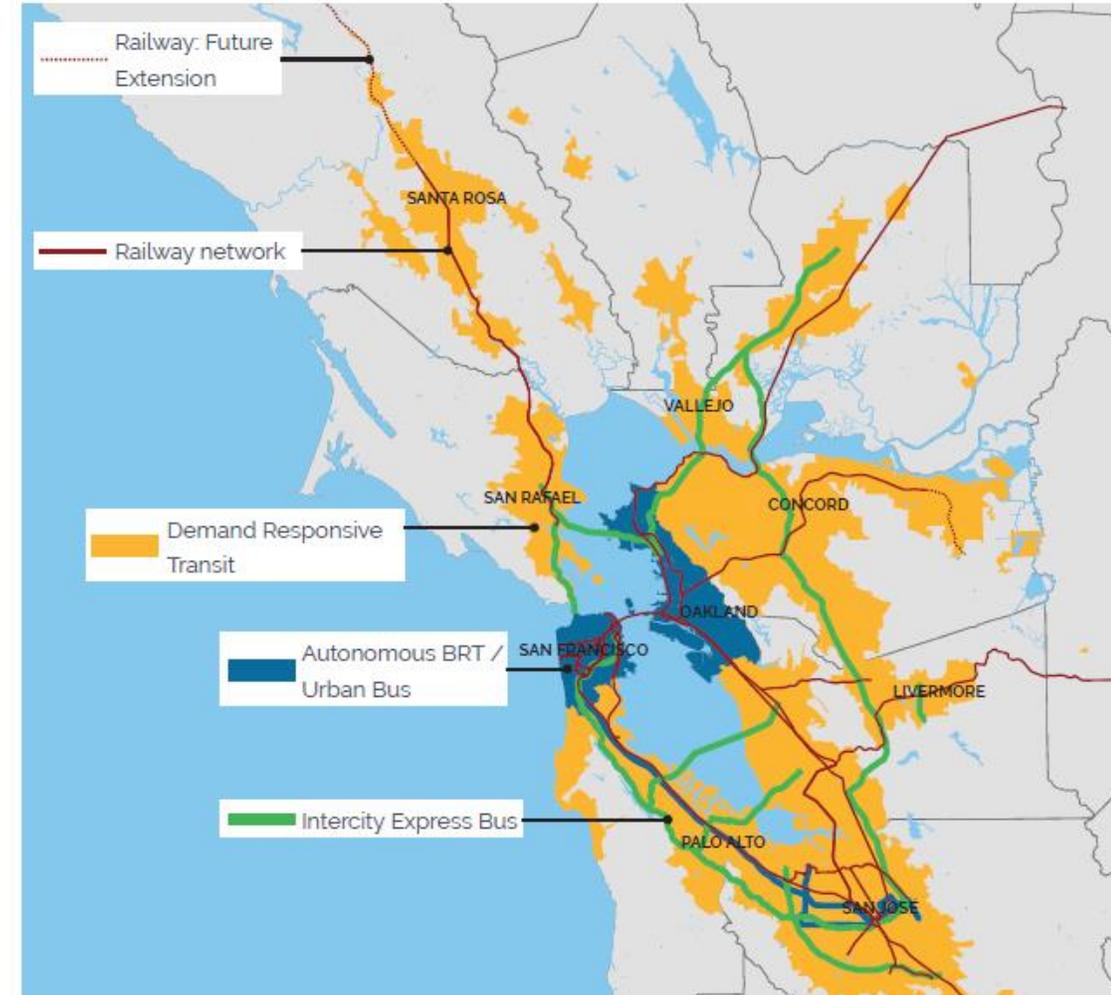


Photo courtesy of LATVA

# MTC's Role in SAVs: Helping Agencies Prepare for the Future

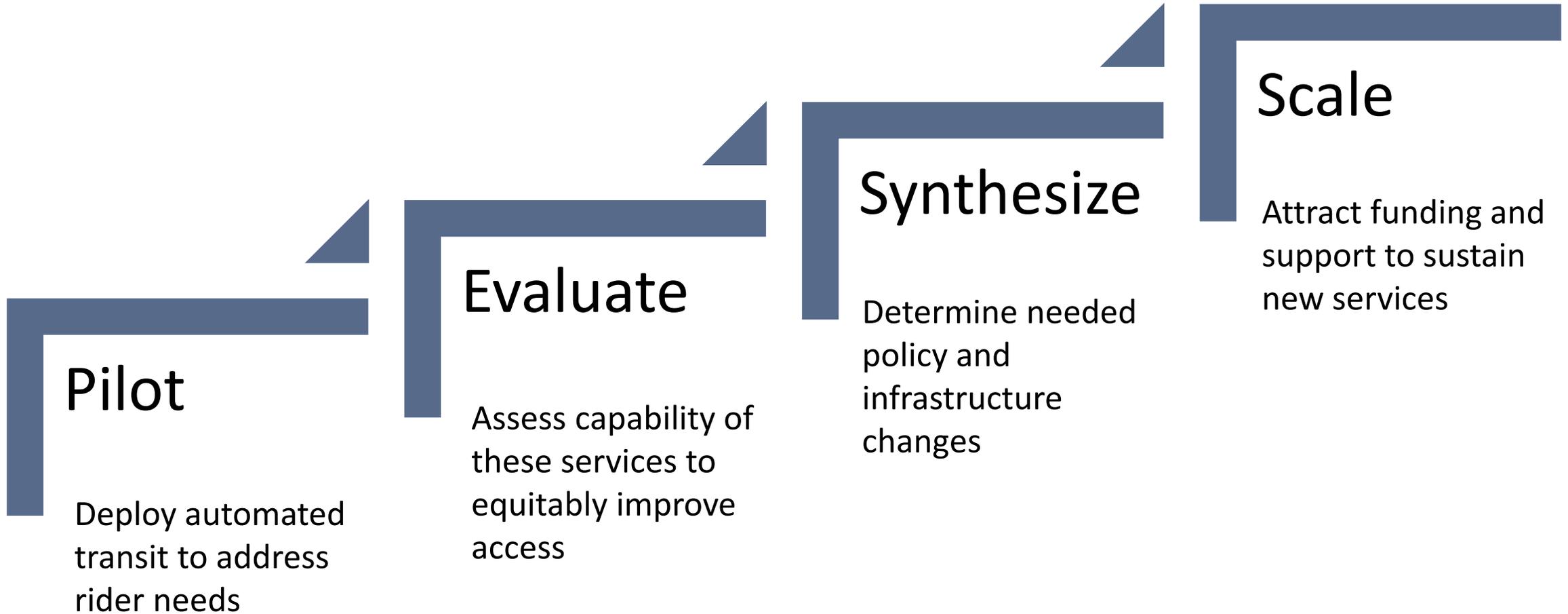
- To further the AV goals of MTC's [Horizon planning](#) using selected priority strategies including:
  - “Innovate suburban transit with autonomous, on-demand microtransit”
  - “Subsidize public transit innovations”
  - “Prioritize AV mobility services [for Equity Priority Communities]”
- To improve mobility in Equity Priority Communities and ensure automated transit is accessible.
- To provide independent assessments of automated vehicles for transit service.
- To coordinate with agency AV pilots in order to assist adaptation to new technologies and service models.

## Regional Automated Transit Vision



Source: Figure 2.2, MTC Horizon AV Perspective Paper

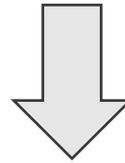
# IDEA SAV Program in Context



# IDEA SAV Program Goal and Objectives

## Program Goal

Equitably improve safety, mobility, and environmental outcomes through shared automated vehicle deployments.



## Program Objectives

Increase public sector experience and readiness for automated transportation by piloting AVs and/or complementary technologies.

Improve access to mass transit for disadvantaged communities.

Improve the accessibility of automated shared passenger services.

Improve transit system performance through AV technology.

# Eligibility and Considerations for Applicants

- A public agency in the nine-county Bay Area must serve as lead sponsor
  - Lead sponsor to be responsible for all deliverables, MTC will provide oversight
- MTC will enter into a funding agreement only with the lead agency
- Proposed variances to Program guidelines should be in the application
- Lead sponsor's federal compliance effort includes but is not limited to:
  - Procurement
  - Systems Engineering
  - Buy America

# Eligibility Requirements for Project Activities

The proposed project must:

1. Deploy a transportation service, asset, or application within 16-months.
  - a) Must include a SAV and/or Complementary Technology.
  - b) The key deliverable is the deployment, not a design or planning document.
2. Align with the Program Goal and at least two Objectives.
3. Address needs of at least one of the program target user groups.
4. Address identified transportation gaps and/or challenges.
5. Build knowledge to help prepare for an AV future.
6. Enhance or expand transit, defined broadly.

# Eligible Technologies

## Shared Automated Vehicles (SAVs):

- Eligible vehicles must have Level 3 - 5 driving automation as defined by SAE International J3016.
- Vehicles must be designed to carry multiple passengers.
- Vehicles must be accessible to all users, including people with disabilities.

## The 5 levels of driving automation

For on-road vehicles



		Steering and acceleration/ deceleration	Monitoring of driving environment	Fallback when automation fails	Automated system is in control
Human driver monitors the road	<b>0</b> NO AUTOMATION				N/A
	<b>1</b> DRIVER ASSISTANCE				SOME DRIVING MODES
	<b>2</b> PARTIAL AUTOMATION				SOME DRIVING MODES
Automated driving system monitors the road	<b>3</b> CONDITIONAL AUTOMATION				SOME DRIVING MODES
	<b>4</b> HIGH AUTOMATION				SOME DRIVING MODES
	<b>5</b> FULL AUTOMATION				

Source: SAE International

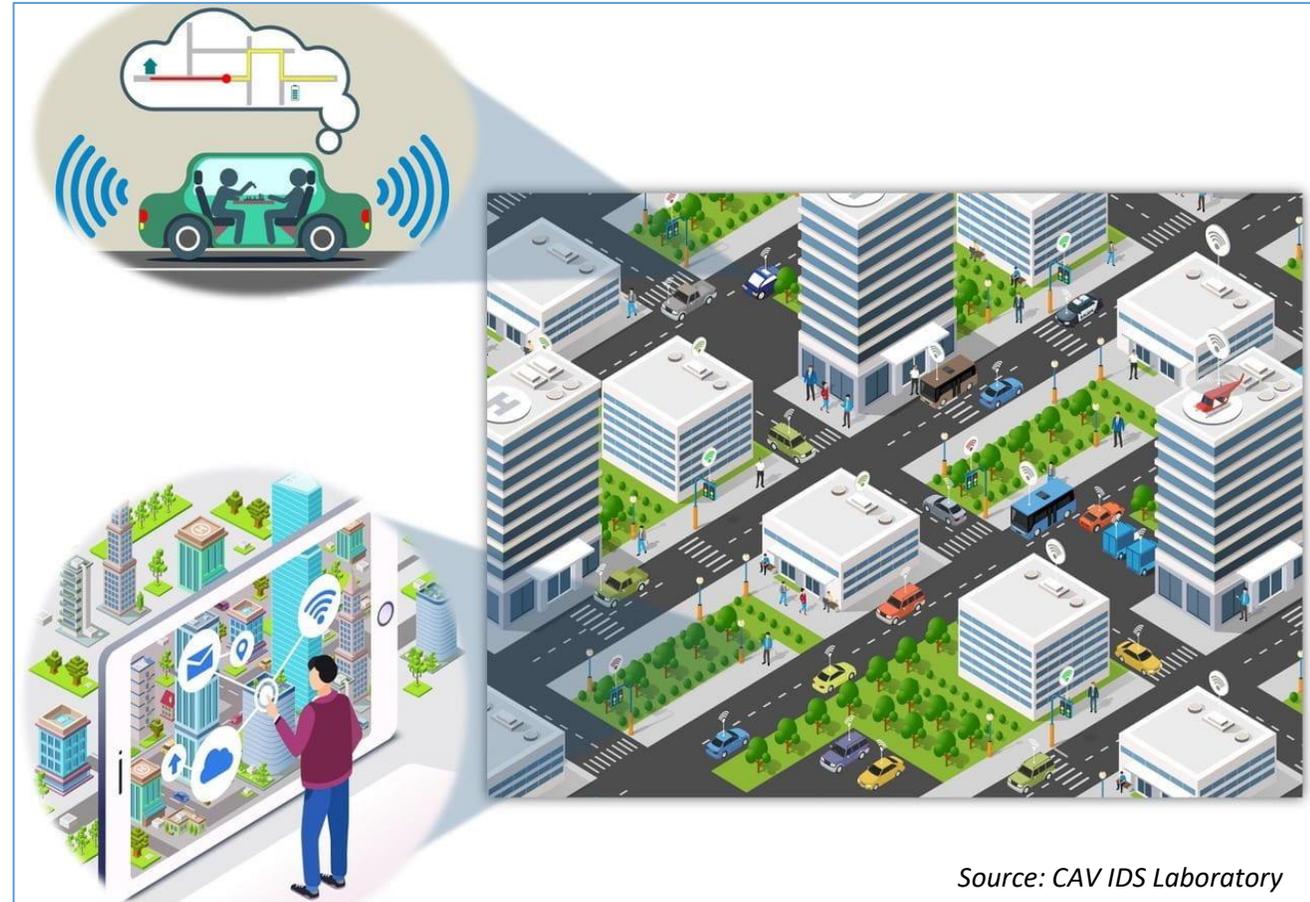


# Eligible Technologies (continued)

**Complementary Technologies help improve an SAV service or trip.**

Technologies may include, but are not limited to:

- Enhanced vehicle or roadway sensors;
- Applications using Vehicle-to-Everything (V2X) communications;
- Traffic control devices optimized to support AVs;
- On-board / transit stop / mobility hub improvements that better accommodate AV users;
- [Complete Trip](#) solutions that serve all users for all phases of a trip from origin to destination; and
- Mobility as a Service (MaaS) software service that provides a seamless trip for users.



# Program Target User Groups

Proposed project should be located within and serve the nine-county San Francisco Bay Area.

## Equity Priority Communities

- People of Color population
- Low-income groups
- Limited English proficiency
- Zero-vehicle households
- Seniors (75 and over)
- Populations with a disability
- Single-parent families
- Cost-burdened renters

## People with Disabilities

- Mobility
- Sensory
- Cognitive
- Veterans with a service-related disability

## Disadvantaged Communities

- Communities that are disproportionately burdened by multiple sources of pollution
- Communities with population characteristics that make them more sensitive to pollution

*More details on each of the following target user groups are in the Call for Projects document, Attachment A.*

# Grant Funding and Match

- Grant funds are only eligible to reimburse non-construction and non-engineering design activities
- The local cash match must directly relate to project implementation
- Public-private partnerships are encouraged but federal procurement rules apply

Grant Funding	
Total Funds	\$2.5 million
Funds Available for Public Agency Grants	\$1.75 million
Funds for MTC Pre-Award and Evaluation	\$0.75 million
Minimum Grant Award	\$0.5 million
Maximum Grant Award	\$1.25 million
Minimum Local Cash Match ( <i>% of grant-eligible total cost</i> )	25%
Minimum In-Kind Match ( <i>% of grant-eligible total cost</i> )	10%

# Project Selection Timeline

Activity	Date*
MTC issues Call for Projects	June 14, 2021
Pre-Submittal Event	June 22, 2021
Stage 1 Q&A period	June 14 – 28, 2021
MTC issues Addendum for responses to Stage 1 questions	June 30, 2021
<b>Stage 1 applications due</b>	<b>July 16, 2021 by 4:00 p.m. (Pacific)</b>
Public RFI Workshops to Collect Feedback on Proposals	August 17-18, 2021 <i>(tentative)</i>
MTC announces up to 5 applicants to advance to Stage 2 & provides feedback	2 <sup>nd</sup> week of September
Stage 2 Q&A period	2 <sup>nd</sup> – 4 <sup>th</sup> week of September
MTC issues Addendum for responses to Stage 2 questions	Late September
<b>Stage 2 applications due</b>	<b>October 20, 2021</b>
MTC completes review of Stage 2 applications and recommends awards	December 2021
MTC Committee Approval of Grant Awards	February 2022

*MTC reserves the right to modify the above dates given written notice/addendum.*

# Request for Information (RFI) Workshops

- **Purpose:** To gather feedback from public stakeholders and technology experts on Stage 1 proposals
- Workshops will be held virtually
- Further workshop information will be provided by MTC via the outreach list and program webpage
  - Please email [IDEASAV@bayareametro.gov](mailto:IDEASAV@bayareametro.gov) to be added to outreach list

No.	Audience	Timeframe
1	Public organizations, community-based organizations, and advocacy groups	Mid-August 2021
2	Technology vendors and Original Equipment Manufacturers	
3	To be determined by MTC, based on the submitted Stage 1 applications	

# Evaluation Criteria

Different criteria weights are assigned for Stage 1 and Stage 2 evaluations.

Criteria	Stage 1 Criteria Weight	Stage 2 Criteria Weight
Alignment with Program Goal, Objectives, and Requirements	25%	10%
Implementation	25%	30%
Project Impact	20%	25%
Project Support/Agency Readiness	20%	25%
Exceeds Local Cash Match	10%	10%

# Application Instructions

- Stage 1 and 2 applications shall be submitted via email to [IDEASAV@bayareametro.gov](mailto:IDEASAV@bayareametro.gov)
  - You may email Robert Rich, IDEA SAV Program Manager, with questions
- Applications should be prepared with standard formatting
- Application should consist of a searchable PDF file and writeable Excel file (budget submittal)
- Application page limits, as counted by 8.5 x 11-inch pages, not including any letters of support:
  - Stage 1: **15-page limit**
  - Stage 2: **30-page limit**

# Program Contacts

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# Thank you for your participation!

## Q&A Session

*Please raise your hand and/or submit questions via the Zoom Chat.*

*We may ask you to summarize your questions in writing in the chat, for capture in the CFP Addendum.*